

CLAIMS

We claim:

1. A stent graft, comprising an endoluminal stent and a graft, wherein said stent graft releases an agent which induces the *in vivo* adhesion of the stent graft to vessel walls.

2. A stent graft, comprising an endoluminal stent and a graft, wherein said stent graft induces or accelerates an *in vivo* fibrotic reaction causing said stent graft to adhere to vessel walls.

3. The stent graft according to claim 1 or 2 wherein said stent graft releases a vessel wall irritant.

4. The stent graft according to claim 3 wherein said vessel wall irritant is selected from the group consisting of talcum powder, metallic beryllium, and silica.

5. The stent graft according to claim 1 or 2 wherein said stent graft releases a component of extracellular matrix.

6. The stent graft according to claim 1 wherein said agent is fibronectin.

7. The stent graft according to claim 1 or 2 wherein said stent graft releases polylysine, or, ethylenevinylacetate.

8. The stent graft according to claim 1 or 2 wherein said stent graft releases an inflammatory cytokine selected from the group consisting of TGF β , PDGF, VEGF, bFGF, TNF α , NGF, GM-CSF, IGF-a, IL-1, IL-8, IL-6, and growth hormone.

9. The stent graft according to claim 1 wherein said agent is an adhesive.

5 10. The stent graft according to claim 9 wherein said adhesive is cyanoacrylate.

11. The stent graft according to claim 1 or 2 wherein said stent graft is bifurcated.

12. The stent graft according to claim 1 or 2 wherein said stent graft is a tube graft.

13. The stent graft according to claim 12 wherein said stent graft is cylindrical.

14. The stent graft according to claim 1 or 2 wherein said stent graft is self-expandable.

15. The stent graft according to claim 1 or 2 wherein said stent graft is balloon-expandable.

16. The stent graft according to claim 1 or 2 wherein the distal ends of said stent graft are adapted to release an agent which induces adhesion.

17. The stent graft according to claim 1 or 2 wherein the entire body of said stent graft is adapted to release an agent that induces adhesion.

18. The stent graft according to claim 1 or 2, further comprising a coating which delays the onset of adhesion or fibrosis.

19. The stent graft according to claim 1 wherein said agent is first activated from a previously inactive agent to an active agent.

6 20. The stent graft according to claim 1 wherein said stent graft is activated from a previously inactive stent graft to a stent graft that induces or accelerates an *in vivo* fibrotic reactions.

21. A method for treating patient having an aneurysm, comprising delivering to a patient a stent graft according to claim 1 ~~or 2~~, such that risk of rupture of the aneurysm is reduced.

22. The method according to claim 21 wherein said aneurysm is an abdominal aortic aneurysm.

23. The method according to claim 21 wherein said aneurysm is a thoracic aortic aneurysm.

24. The method according to claim 21 wherein said aneurysm is an iliac aortic aneurysm.

25. A method for bypassing disease within a vessel, comprising delivering to a patient a stent graft according to any one of claims 1 ~~to 20~~, such that vessel contents bypass said diseased portion of said vessel.

26. A method for creating communication between an artery and a vein, comprising delivering to a patient a stent graft according to any one of claims 1 ~~to 20~~, such that a passageway is created between said artery and vein.

27. A method for creating communication between a first vein and a second vein, comprising delivering to a patient a stent graft according to any one of claims 1 ~~to 20~~, such that a passageway is created between said first and second veins.

28. The method according to any one of claims 21, ~~25, 26, or, 27~~ wherein said stent graft is delivered into a patient in a constrained form, and self-expands into place after release of a constraining device.

29. The method according to ~~any one of claims 21, 25, 26, or, 27~~ wherein said stent graft is delivered to said patient by balloon catheter.

30. A method of manufacturing an adhesive stent graft, comprising coating a stent graft with an agent which induces adhesion of the stent graft to vessel walls.

31. The method according to claim 30 wherein said stent graft is coated by spraying, dipping, or wrapping said stent graft with said agent.

32. The method according to claim 30 wherein said agent further comprises a polymer.

33. The method according to claim 30 wherein said agent is a vessel wall irritant.

34. The method according to claim 30 wherein said agent is an inflammatory cytokine.

35. The method according to claim 30 wherein said agent is an inflammatory crystal.

36. The method according to claim 30 wherein said agent is bFGF.